

Coordinator's report



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EXPReS board

Utrecht, 30 January, 2008

Objective of this talk

- Review progress meeting
- Do discuss the progress in EXPR^eS from board perspective
 - What has EXPR^eS managed to demonstrate so far?
 - What are the concerns with respect to progress?
 - Is the EC getting what they contracted?
 - Are we going where we want to be?
- And think beyond the EXPR^eS project
 - Future of the project, future of e-VLBI, future of our collaboration
 - Relation to other initiatives, telescopes
- A few words about JIVE....
 - Going through many personnel changes

*My personal,
biased view*

- **EXPRéS secretary Diana van Dijk left**
 - Internal transfer to AstroTech Holding
 - Managed to arrange transition for the continuity EXPRéS
- **Yvonne Kool joined secretariat**
 - Now employed as senior secretary
 - Full time job at JIVE, EXPRéS among her responsibilities
- **Zsolt Paragi will be Senior Support Scientist**
 - Permanent position with JIVE
 - Will fulfil e-VLBI scientist role for remainder of EXPRéS
 - Checked with EC that this is still “eligible”
- **Other EXPRéS staff changes last summer**
- **JIVE staffing situation has been tight**
 - Will still have opening in management structure
 - MoU renewal negotiated, JIVE for 5 more years
 - Funding proposal for RadioNet of vital importance

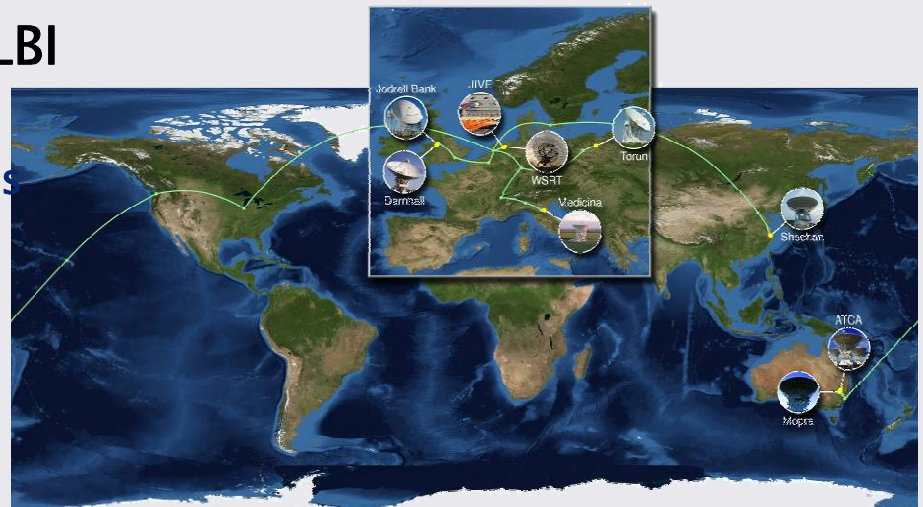
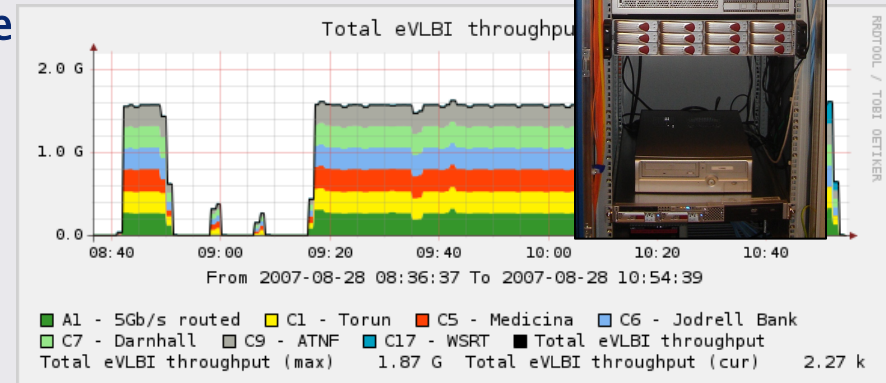
Yesterday's progress meeting



- Good progress, and a lot of discussion
 - Very useful source of information
 - Good to have it before the annual report
 - Need to see more progress reports in the public domain?
- We are a multi-disciplinary lot
 - For some talks the Networks are just clouds of vapourware
 - For others the astronomers are in the clouds :-)
 - But I guess we can bear with that!
- There was a lot of “interference” from LOFAR
 - Many talks had some mention of LOFAR requirements
 - But addressing common problems with LOFAR is part of Description of Work
 - So, EXPR eS can facilitate that discussion
- I think this format is very good
 - Board meeting seems long too wait
 - The Shanghai e-VLBI meeting could be interesting

EXPRoS has demonstrated...

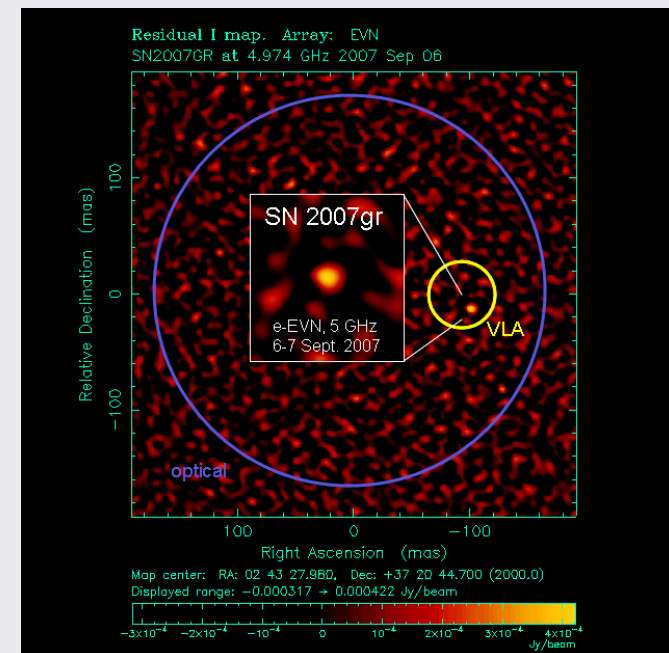
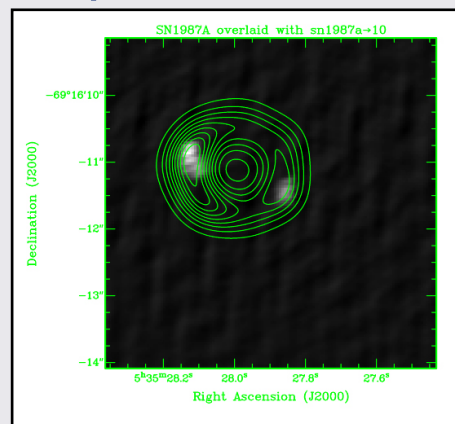
- That e-VLBI can be done reliably
- and at competitive sensitivity now!
 - Modified successfully the old correlator and adopted the operational procedure
 - 6 telescopes operational in Europe
- Operations favour dedicated lightpaths for robust performance
 - And tinkering with the protocols (UDP)
 - And then we can get close to 1 Gbps
- Can even do intercontinental VLBI in real-time!
 - Overcame round-trip time problems
 - And even complex politics



EXPRes demonstrated more...



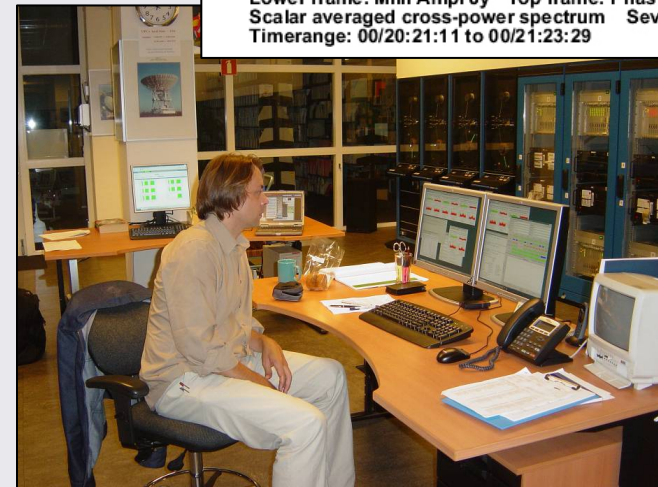
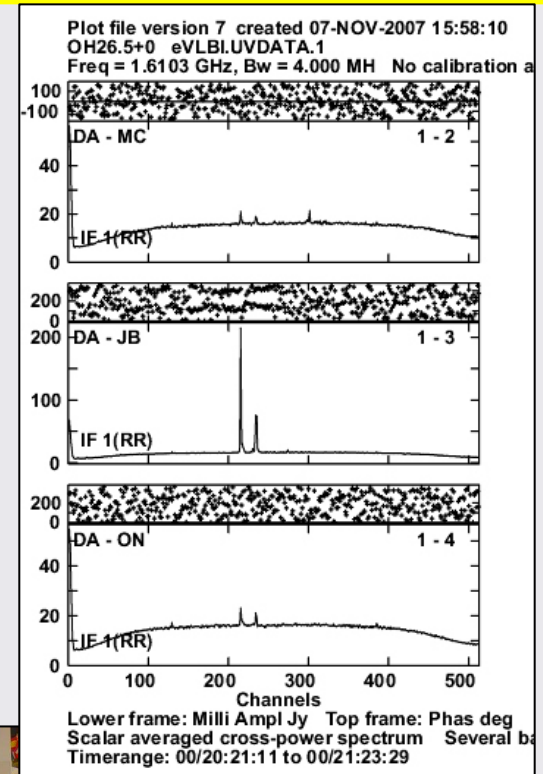
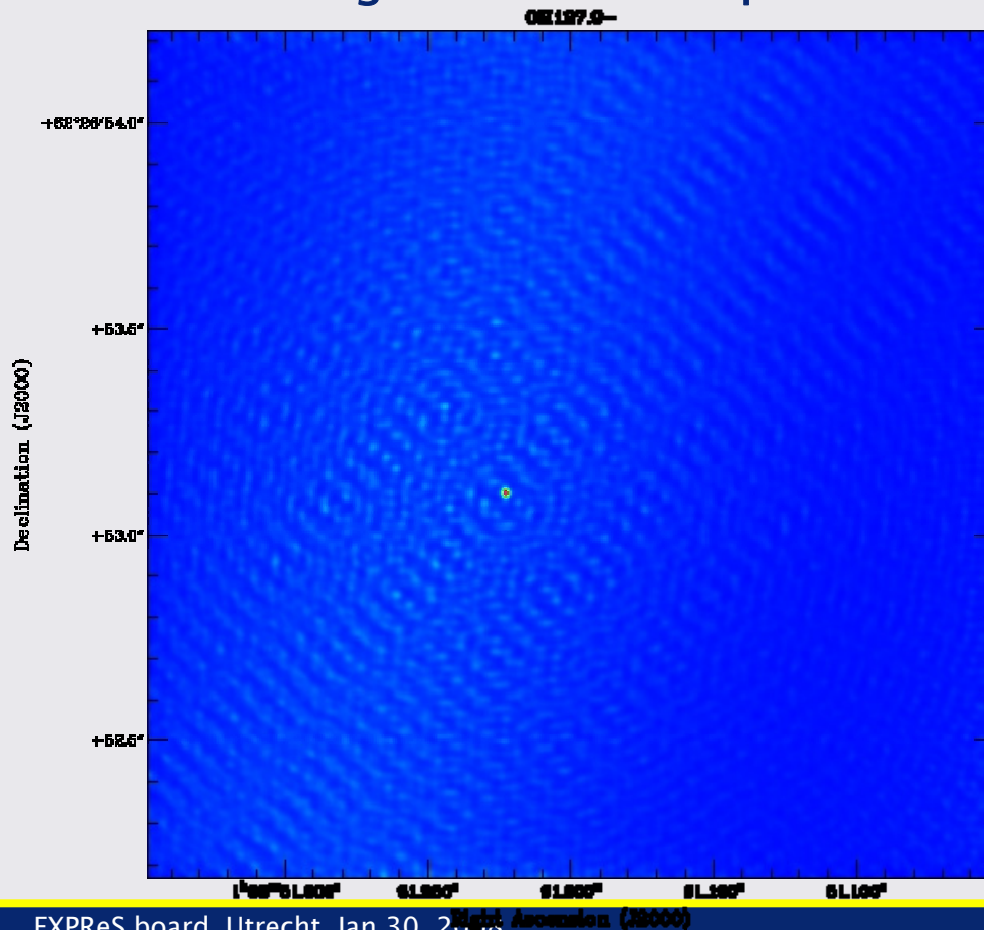
- Various ways to proceed beyond current VLBI system
 - 10Gbps connectivity coming up
 - Started iBoB development
 - Demonstrated working on distributed software correlator
- Astronomy can be done with this network
 - And even new science
 - And even spectral line science



Astronomy: spectral line science

- Astrometry of circumstellar masers

- e-VLBI to get better time coverage
- So our very slow response is justified...
- Technically OK, demonstration perfect
- Science goals not so simple



- **Management**

- Keep the money flowing, yes we know!
- Continuity of staffing is always a worry
- Internal communication can always be improved!
 - Not to be remedied by e-collaboration tools as the review suggested

- **Technical issues**

- Must make the transition to Mk5B for eVLBI?
- Parts of the e-MERLIN correlator on the critical path

- **Connectivity**

- Really, really like to have Effelsberg in the Network
 - And Yebes when it is available
 - And Ventspils when it is ready
- Tests with South-America and Africa?

Concerns (cont)

- Astronomy not yet the greatest success
 - Still fail to attract large numbers of users
 - Poor sensitivity compared to disk recording?
 - Effelsberg missing, not at 1 Gbps
 - Not providing longest baselines?
 - Cannot yet offer China, Arecibo, South Africa operationally
 - Confused by changing policies?
 - Policy now not very restrictive anymore, EVN board quite supportive
- Some frustration with inertia/conservatism of EVN officers
 - I think this is as fast forward as we can go?
- Modified call for proposals advertised
 - Deadline in 2 days, hard to predict now
- EC seems to await a “big discovery”

QuickTime™ and a
H.264 decompressor
are needed to see this picture.

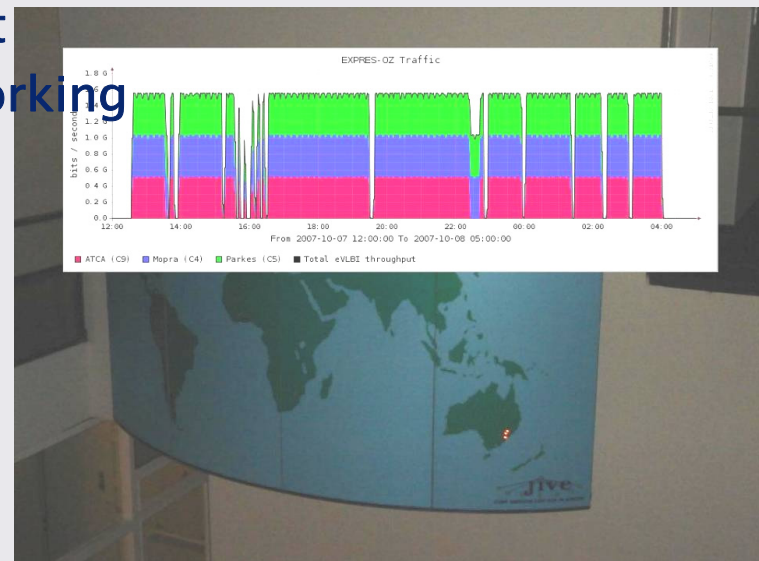
Satisfying EC contract

- I think we are doing OK in year 2
 - But we noticed last year that the standard is quite high
 - Think the PR activities with global connectivity helped
 - And we will do some more
- Must be seen to take their considerations seriously
 1. Regular monitor tool to measure operational bandwidth every day
 2. Closer liaison with network people
 3. Explore QoS tools to get better service
 4. Use more collaborative tools established elsewhere
 5. Keep closer control on deliverables



Are we getting what we want?

- Yes! An opportunity to position VLBI for the next decade
 - A way to offer new scientific capabilities
 - An upgrade path for VLBI in the future
 - Larger bandwidth, more bit per sample
 - But not quite clear what the correlator for that should look like
 - An opportunity to position e-VLBI as a SKA pathfinder
- A good collaboration with suppliers of Networks
 - Dynamic lightpaths prove important
 - Pushing the requirements for Networking
 - And computing at some point
- Building up expertise
 - And momentum
 - And a reputation



What's next?

- There are 20 months left in EXPRes
 - If we extend the project for 6 months
 - Not an obvious EC call to continue our project in FP7 (yet)
 - Maybe a new call in late 2008 for 2009 start
 - But EC themes seem different from our ambitions?
- Currently a unique collaboration of Observatories & NREN's
 - We should aim to continue this, who would disagree?
 - Maybe involve more supercomputing/GRID in the future?
 - And keep our focus on (Global) e-VLBI?
 - I like to get some NRAO antennas involved
 - Or should it be about e-LOFAR and SKA as well?
- Number of things to be addressed in future e-VLBI:
 - Light paths on demand, around the globe...
 - Buffering data at telescopes and correlator for robustness
 - Make use of 10Gbps connectivity operationally
 - Needs data acquisition system and correlator concept!

